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*Attorneys for Plaintiff and the Class*

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

11 STUART GO, on behalf of  
12 himself and all others similarly situated,

Plaintiff,

vs.

14 LEXAR MEDIA, INC.;  
15 HITACHI AMERICA, LTD.;  
16 HITACHI, LTD.;  
17 HITACHI ELECTRONIC DEVICES USA;  
18 HYNIX SEMICONDUCTOR AMERICA,  
19 INC.;  
20 HYNIX SEMICONDUCTOR, INC.;  
21 MICRON TECHNOLOGY, INC.;  
22 MICRON SEMICONDUCTOR PRODUCTS,  
23 INC.;  
24 MITSUBISHI ELECTRIC CORPORATION;  
25 MITSUBISHI ELECTRIC AND  
26 ELECTRONICS USA, INC.;  
27 MOSEL VITELIC CORPORATION;  
28 MOSEL VITELIC, INC.;  
RENEASAS TECHNOLOGY CORPORATION;  
RENEASAS TECHNOLOGY AMERICA, INC.;  
SAMSUNG SEMICONDUCTOR, INC.;  
SAMSUNG ELECTRONICS COMPANY,  
LTD.;  
SANDISK CORPORATION;  
STMICROELECTRONICS N.V.;  
STMICROELECTRONICS, INC.;  
TOSHIBA CORPORATION;  
TOSHIBA AMERICA, INC.; AND  
TOSHIBA AMERICA ELECTRONIC  
COMPONENTS, INC.,  
WINBOND ELECTRONICS  
CORPORATION;

C 07 4547  
CLASS ACTION COMPLAINT

DEMAND FOR JURY TRIAL

VRW

BY FAX

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CLASS ACTION COMPLAINT

1 WINBOND ELECTRONICS CORPORATION  
2 AMERICA, INC.;

3 Defendants.

4  
5 **I. NATURE OF THE CASE**

6 1. Plaintiff STUART GO brings this lawsuit as a Class Action on behalf of individuals  
7 and entities who purchased Flash Memory INDIRECTLY from Defendants, their subsidiaries, agents,  
8 or co-conspirators during the period from at least January 1, 1999 through the present ("Class  
9 Period").

10 2. As used herein, the term "Flash Memory" means all types of Flash Memory sold  
11 during the Class Period, including AND, Not AND ("NAND"), and Not OR ("NOR")  
12 technologies. For purposes of this complaint, Flash Memory excludes all types of static random  
13 access memory ("SRAM") or dynamic random access memory ("DRAM") sold during the Class  
14 Period.

15 3. Flash Memory is non-volatile computer memory that can be electronically erased  
16 and reprogrammed. It is a technology that is primarily used in memory cards, but also found in  
17 digital audio players, digital cameras, DVD players, mobile phones and video game consoles.  
18 Flash Memory is the most popular form of computer memory, and costs far less than competing  
19 forms of memory. As a result it has become the dominant technology wherever a significant  
20 amount of non-volatile, solid-state storage is needed. It is a "stand alone product" as explained in  
21 the following paragraphs.

22 4. During the Class Period, Defendants' collusive behavior artificially inflated the  
23 price of Flash Memory. Defendants participated in cartel-like behavior to fix the prices of these  
24 products. Because of Defendants' unlawful conduct and conspiracy, Plaintiff and other members  
25 of the Class paid artificially inflated prices for Flash Memory. Plaintiff and other members of the  
26 Class who purchased these products have been damaged by Defendants' illegal actions.

27 **II. JURISDICTION AND VENUE**

28 5. This complaint is filed pursuant to §16 of the Clayton Act, 15 U.S.C. § 26, seeking

injunctive relief for violations of §1 of the Sherman Act, 15 U.S.C. §1. In addition, plaintiff and the class seek damages for violations of state antitrust and consumer protection laws. Plaintiff and the class also seek to recover the costs of suit, including reasonable attorneys' fees, for the injuries suffered as a result of the Defendants' violations of those laws.

6. This Court's jurisdiction is based on 28 U.S.C. §§1331 and 1337. The Court also has jurisdiction over the state law claims under 28 U.S.C. §1367 because those claims are so related to the federal claim that they form part of the same case or controversy. The Court also has jurisdiction over the state law claims under 28 U.S.C. §1332 because the amount in controversy for the Class exceeds \$5,000,000 and there are members of the Class who are citizens of a different state than the defendants.

7. Venue is proper in this Judicial District given that plaintiff resides in this district, defendants reside, transact business, or are found within this District, and a substantial part of the events giving rise to the claims arose in the District.

### III. PARTIES

#### A. Plaintiff

8. **STUART GO** is an individual who purchased Flash Memory **indirectly** from one or more of the Defendants during the Class Period at artificially high prices as a result of the Defendants' illegal conspiracy and unlawful acts.

#### B. Defendants

9. Defendant **HYNIX SEMICONDUCTOR AMERICA, INC.** is a wholly owned and controlled subsidiary of Defendant Hynix Semiconductor, Inc. with its principal place of business at 3101 North First Street, San Jose, California, 95134. Hynix Semiconductor America, Inc. is a California corporation. During the Class Period, Hynix Semiconductor America, Inc. sold and distributed Flash Memory to customers throughout the United States. Hynix Semiconductor, Inc. and Hynix Semiconductor America, Inc. are referred to collectively herein as "Hynix."

10. Defendant **HYNIX SEMICONDUCTOR, INC.** is a business entity organized under the laws of South Korea, with its principal place of business at SAN 136-1, Ami-Ri Bubal-eub, Icheon-si, Kyoungki-do, Korea, 467-701. During the Class Period, Hynix

1 Semiconductor, Inc. manufactured, sold and distributed Flash Memory to customers throughout the  
2 United States.

3 11. Defendant **HITACHI AMERICA, LTD** is incorporated in the State of New York  
4 with its principle place of business at 50 Prospect Ave, Tarrytown, New York 10591. It is a wholly  
5 owned subsidiary of Defendant Hitachi Ltd. During the Class Period, Hitachi America Ltd. sold  
6 and distributed Flash Memory to customers throughout the United States.

7 12. Defendant **HITACHI, LTD.** is a business entity organized under the laws of Japan  
8 with its principal place of business at 6-1 Marunoyuchi Center Building 13F Chiyodaku, Tokyo,  
9 100-8220, Japan. During the Class Period Hitachi, Ltd. sold and distributed Flash Memory to  
10 customers throughout the United States.

11 13. Defendant **MICRON TECHNOLOGY, INC.** is a Delaware Corporation with its  
12 principal place of business at 8000 South Federal Way, Boise, Idaho, 83716. During the Class  
13 Period, Micron Technology, Inc. manufactured, sold and distributed Flash Memory to customers  
14 throughout the United States.

15 14. Defendant **MICRON SEMICONDUCTOR PRODUCTS, INC.** is a corporation  
16 formed under the laws of Delaware. Micron Semiconductor Products, Inc. is a wholly owned and  
17 controlled subsidiary of Defendant Micron Technology, Inc. with its principal place of business at  
18 8000 South Federal Way, Boise, Idaho, 83716. During the Class Period, Micron Semiconductor  
19 Products, Inc. sold and distributed Flash Memory to customers throughout the United States.

20 15. Defendant **LEXAR MEDIA, INC.** is a Delaware corporation with its principal  
21 place of business at 47300 Bayside Parkway, Fremont, California, 94538. During the Class Period,  
22 Lexar Media, Inc. sold and distributed Flash Memory to customers throughout the United States.  
23 Lexar Media was bought by Micron Technology, Inc. Lexar Media, Inc., Micron Technology,  
24 Inc., and Micron Semiconductor Products, Inc. are referred to collectively herein as "Micron."

25 16. Defendant **MITSUBISHI ELECTRIC CORPORATION**, is a business entity  
26 organized under the laws of Japan, with its principal place of business at Tokyo Building 2-7-3,  
27 Marunouchi, Chiyoda-ku, Tokyo, 100-8310, Japan. During the Class Period, Mitsubishi Electric  
28 Corporation sold and distributed Flash Memory to customers throughout the United States.

1           17. Defendant **MITSUBISHI ELECTRIC AND ELECTRONICS USA, INC.**, is  
2 incorporated in the State of Delaware with its principal place of business at 500 Corporate Wood  
3 Parkway, Vernon Hills, Illinois 60061. It is a wholly owned subsidiary of Mitsubishi Electric  
4 Corporation. During the Class Period, Mitsubishi Electric and Electronics USA, Inc. sold and  
5 distributed Flash Memory to customers throughout the United States. Defendant Mitsubishi  
6 Electric Corporation and Mitsubishi Electric and Electronics USA, Inc. are referred to collectively  
7 herein as "Mitsubishi."

8           18. Defendant **MOSEL VITELIC CORPORATION**, is incorporated in the State of  
9 California with its principal place of business at 3910 North First Street, San Jose, California  
10 95134. It is a wholly owned subsidiary of Mosel Vitelic Inc. During the Class Period, Mosel  
11 Vitelic Corporation sold and distributed Flash Memory to customers throughout the United States.

12           19. Defendant **MOSEL VITELIC, INC.** is a business entity organized under the laws  
13 of Taiwan with its principal place of business at No. 19 Li Hsin Road, Science-Based Industrial  
14 Park, Hsinchu, Taiwan. During the Class Period, Mosel Vitelic, Inc. sold and distributed Flash  
15 Memory to customers throughout the United States. Defendant Mosel Vitelic Corporation and  
16 Mosel Vitelic, Inc. are referred to collectively herein as "Mosel."

17           20. Defendant **RENESAS TECHNOLOGY CORPORATION** is a business entity  
18 organized under the laws of Japan with its principal place of business at Marunouchi Building, 4-1,  
19 Marunouchi 2-chrome, Chiyoda-ku, Tokyo, 100-6334, Japan. Renesas Technology Corporation  
20 was established on or about April 1, 2003 as a joint venture of Hitachi and Mitsubishi. During the  
21 Class Period, Renesas Technology Corporation sold and distributed Flash Memory to customers  
22 throughout the United States.

23           21. Defendant **RENESAS TECHNOLOGY AMERICA, INC.** is a Delaware  
24 corporation and is a wholly owned and controlled subsidiary of Renesas Technology Corporation  
25 with its principal place of business at 450 Holger Way, San Jose, California, 95134-1368. During  
26 the Class Period, Renesas Technology America, Inc. sold and distributed Flash Memory to  
27 customers throughout the United States. Defendants Renesas Technology Corporation and  
28 Renesas Technology America, Inc. are referred to collectively herein as "Renesas."

22. Defendant **SAMSUNG SEMICONDUCTOR, INC.** is a California corporation and is a wholly owned and controlled subsidiary of Samsung Electronics Company, Ltd. with its principal place of business at 3655 North First Street, San Jose, California, 95134. During the Class Period, Samsung Semiconductor, Inc. sold and distributed Flash Memory to customers throughout the United States.

23. Defendant **SAMSUNG ELECTRONICS COMPANY, LTD.** is a business entity organized under the laws of South Korea, with its principal place of business at Samsung Main Building, 250-2 ga, Taepyung-ro, Chung-gu, Seoul, Korea. During the Class Period, Samsung Electronics Company, Ltd. sold and distributed Flash Memory to customers throughout the United States. Samsung Electronics Company, Ltd. and Samsung Semiconductor, Inc. are referred to collectively herein as "Samsung."

24. Defendant **SANDISK CORPORATION** is a Delaware Corporation with its principal place of business at 601 McCarthy Boulevard, Milpitas, California, 95035. During the Class Period, SanDisk Corporation sold and distributed Flash Memory to customers throughout the United States.

25. Defendant **STMICROELECTRONICS N.V.** is a business entity organized under the laws of the Netherlands, with its principal place of business at 39, Chemin du Champ des Filles, C. P. 21, CH 1228 Plan-Les-Ouates, Geneva, Switzerland. During the Class Period, ST Microelectronics N.V. sold and distributed Flash Memory to customers throughout the United States.

26. Defendant **STMICROELECTRONICS, INC.**, is a Delaware corporation and is a wholly owned and controlled subsidiary of ST Microelectronics N.V. with its principal place of business located at 1310 Electronics Dr., Carrollton, TX , 75006-7005. During the Class Period, ST Microelectronics, Inc. sold and distributed Flash Memory to customers throughout the United States. ST Microelectronics N.V. and ST Microelectronics, Inc. are referred to collectively herein as "STMicroelectronics."

27. Defendant **TOSHIBA CORPORATION** is a business entity organized under the laws of Japan, with its principal place of business at 1-1 Shibaura, 1-chrome Minato-ku, Tokyo,



1 105-8001, Japan. During the Class Period, Toshiba Corporation sold and distributed Flash  
2 Memory to customers throughout the United States.

3 28. Defendant **TOSHIBA AMERICA CORPORATION** is a Delaware corporation  
4 and is a wholly owned and controlled subsidiary of Toshiba Corporation with its principal place of  
5 business at 1251 Avenue of the Americas, Suite 4110, New York, New York, 10020. During the  
6 Class Period, Toshiba America Corporation manufactured, sold and distributed Flash Memory to  
7 customers throughout the United States.

8 29. Defendant **TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.** is a  
9 California corporation and is a wholly owned and controlled subsidiary of Toshiba Corporation  
10 with its principal place of business located at 19900 MacArthur Boulevard, Suite 400, Irvine,  
11 California, 92612. During the Class Period, Toshiba America Electronic Components, Inc. sold  
12 and distributed Flash Memory to customers throughout the United States. Toshiba Corporation,  
13 Toshiba America Corporation, and Toshiba America Electronic Components, Inc. are referred to  
14 collectively herein as "Toshiba."

15 30. Defendant **WINBOND ELECTRONICS CORPORATION** is a business entity  
16 organized under the laws of Taiwan with its principal place of business at No. 4 Creation Road 3,  
17 Science-Based Industrial Park, Hsinchu, 300, Taiwan. During the Class Period, Winbond  
18 Electronics Corporation sold and distributed Flash Memory to customers throughout the United  
19 States.

20 31. Defendant **WINBOND ELECTRONICS CORPORATION AMERICA, INC.** is  
21 incorporated in the State of Delaware with its principal place of business at 2727 North First  
22 Street, San Jose, California 95134. It is a wholly owned subsidiary of Winbond Electronics  
23 Corporation. During the Class Period, Winbond Electronics Corporation America Inc. sold and  
24 distributed Flash Memory to customers throughout the United States. Defendant Winbond  
25 Electronics Corporation and Winbond Electronics Corporation America, Inc. are referred to  
26 collectively herein as "Winbond."

27 **C. Agents And Co-Conspirators**

28 32. At all relevant times, each Defendant acted as the agent or joint venturer of or for

other Defendants with respect to the acts, violations and common course of conduct alleged herein. Each Defendant ratified and/or authorized the wrongful acts of each of the Defendants.

33. Defendants, along with certain other corporations, entities, and persons not named as Defendants are co-conspirators in the violations and cartel behavior alleged in this Complaint. These co-conspirators have performed acts and made statements in furtherance of the antitrust violations and conspiracies alleged herein.

34. Defendants, and each of them, are individually sued as participants and as aiders and abettors in the improper acts, plans, schemes, and transactions that are the subject of this complaint.

#### IV. CLASS ACTION ALLEGATIONS

35. Plaintiff brings this action himself and all others similarly situated ("the Class") in accordance with Federal Rules of Civil Procedure 23(a), 23(b)(2), and 23(b)(3). The Class is defined as follows:

All persons and entities currently residing in the United States who, from January 1, 1999 through the present, purchased Flash Memory in the United States. Excluded from this Class are the Defendants; their parents, predecessors, successors, subsidiaries, units, divisions, employees, officers, directors; co-conspirators; government entities; and any and all judges and justices (and members of their immediate families) assigned to hear any aspect of this case.

36. This action is appropriate for class treatment under Federal Rule of Civil Procedure 23 because:

- a. The Class is ascertainable and there is a well-defined community of interest among the members of the Class;
- b. Plaintiff is informed and believes, and thus alleges, that based on the nature of the trade and commerce involved and the number of indirect purchasers of Flash Memory, there are hundreds of thousands, if not over a million, class members. As a result, joinder of Class members is not practicable;



- 1 c. Plaintiff claims are typical of the Class members' claims. Plaintiff  
2 purchased Flash Memory in the United States, and therefore Plaintiff's  
3 claims arise from the same conduct giving rise to the Class members'  
4 claims. Similarly, the relief sought is common to the Class;
- 5 d. The following are common questions of law and fact among Plaintiff and  
6 the Class:
- 7 i. whether Defendants formed and operated a combination or  
8 conspiracy to fix, raise, maintain or stabilize the prices of Flash  
9 Memory;
- 10 ii whether Defendants' combination or conspiracy caused Flash  
11 Memory prices to be higher than they would have been in the  
12 absence of Defendants' conduct;
- 13 iv. whether Defendants' conduct caused injury to the business or  
14 property of Plaintiff and the members of the Class;
- 15 v. the appropriate measure of damages suffered by the Class;
- 16 vi. the operative time period of Defendants' combination or conspiracy;
- 17 vii. the identities of the co-conspirators;
- 18 viii. whether an injunction is necessary to cause Defendants not to  
19 engage in illegal acts;
- 20 ix. whether Defendants' conduct constitutes a violation of §1 of  
21 the Sherman Act, 15 U.S.C. §1;
- 22 x. whether Defendants' conduct constitutes a violation of California  
23 Business and Professions Code §§16720 and 17200;
- 24 xi. whether Defendants' conduct constitutes a violation of the antitrust,  
25 unfair competition, and common laws of the states as alleged in the  
26 Fourth Claim for Relief below; and
- 27 xii. whether Defendants engaged in concealment of their conspiracy  
28 from the Plaintiff and other Class members;

- e. These and other questions of law and fact are common to the members of the Class and therefore predominate over any questions affecting only individual members of the Class;
- f. Plaintiff will fairly and adequately protect the interests of the Class and Plaintiff has no interests that are antagonistic to other members of the Class;
- g. Plaintiff has retained counsel competent and experienced in the prosecution of antitrust litigation and class actions to represent himself and the Class;
- h. A class action is superior to other available methods for the fair and efficient adjudication of this dispute. Individual joinder of all damaged Class members is impractical. Further, because the damages suffered by individual Class members are relatively small, it would not be feasible for Class members to vindicate their claims unless Rule 23's class action procedures are applied. Individual litigation of these claims would be costly and could create the risk of inconsistent or contradictory judgments and will also greatly magnify the delay and expense to all parties and to the judicial system. The use of the class action procedure presents many less case management difficulties. A single adjudication, economies of scale, and the supervision by a single court are salutary goals which may be achieved through use of the class mechanism;
- i. Unless the class procedure is used, Defendants will be unjustly enriched because they will be able to retain the benefits of their wrongful conduct; and
- j. the claims in this case are also properly certifiable under the laws of the State of California, and of the other individual states identified below.

## V. MARKET AND COMMERCE

37. Throughout the Class Period, Defendants and their co-conspirators engaged in the business of marketing and selling Flash Memory throughout the United States. During the Class

1 Period of January 1999 through the present, total sales of Flash Memory were in the billions of  
2 dollars.

3 38. The market for the manufacture and sale of Flash Memory is conducive to the type  
4 of collusive activity alleged here. There are significant manufacturing and technological barriers to  
5 entry in the Flash Memory industry. A state-of-the-art fabrication plant can cost upwards of \$2  
6 billion and changing technology requires constant research and development investment. *See, e.g.,*  
7 Yun-Hee Kim, StreetInsider.com, 8-27-07 (Interview: "SanDisk, Hynix Plan New Flash Memory  
8 Plant."),  
9 ([http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+](http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+Memory+Plant/2819007.html)  
10 [Memory+Plant/2819007.html](http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+Memory+Plant/2819007.html)).

11 39. The Flash Memory market is oligopolistic in nature. Samsung is the clear market  
12 leader followed by Toshiba, Hynix, Renesas, and Micron. According to the iSuppli website, the  
13 leading Flash Memory manufacturers in 2005 were as follows:

14		
15	Samsung:	52.9%
16	Toshiba:	21.9%
17	Hynix:	12.7%
18	Renesas:	6.8%
19	Micron:	2.2%

20 40. These five entities control over 96.5% of the Flash market.

21 41. The market for Flash Memory is large, with worldwide revenues in excess of \$12  
22 billion in 2006, and growing.

## 23 **VI. PRODUCT AND TRADE**

24 42. The market for the manufacture and sale of Flash Memory is subject to high  
25 manufacturing and technological barriers to entry. Efficient fabrication plants are large and costly.  
26 Flash Memory is also subject to technological advances, so that firms within the industry must  
27 undertake significant research and development expenses.

28 43. Further, Flash Memory is a homogeneous product sold by Defendants and

1 purchased by Plaintiff and members of the Class primarily on the basis of price.

2 44. Manufacturers of electronic products and devices, and resellers of Flash Memory  
3 components purchase Flash Memory directly or indirectly from the Defendants. These electronic  
4 products and devices and Flash Memory components are then sold, directly or indirectly, to  
5 consumers.

6 45. Defendants sell Flash Memory through various channels, including to  
7 manufacturers of electronic products and devices, and to resellers of products containing Flash  
8 Memory. These electronic products and devices are then sold to consumers, directly or indirectly,  
9 and are not altered during the course of sale.

10 46. California is the largest market in the world for Flash Memory and is the world  
11 wide center of the high technology industry and other industries that depend upon Flash Memory.  
12 Statements concerning the prices and market conditions for Flash Memory were disseminated by  
13 Defendants from and into California on a regular and continuous basis.

## 14 **VII. FACTUAL ALLEGATIONS**

### 15 **A. Background Of Chips**

16 47. Flash Memory is a type of electronic memory chip with a read-only memory that  
17 retains its data when the power is turned off and that can be electronically erased and  
18 reprogrammed without being removed from the circuit board. Flash Memory is non-volatile,  
19 meaning that it does not need continuous power to maintain the information stored for the chip.  
20 Flash Memory is produced in the form of an integrated chip which is used in a variety of  
21 applications, including memory cards, digital audio players, DVD players, digital cameras, mobile  
22 phones, video game consoles, USB storage devices, fax machines and personal computers. Some  
23 examples of Flash Memory are:

- 24 a. a computer's BIOS chip,
- 25 b. CompactFlash (most often found in digital cameras),
- 26 c. SmartMedia (most often found in digital cameras),
- 27 d. Memory Stick (most often found in digital cameras),
- 28 e. PCMCIA Type I and Type II memory cards ,

- f. memory cards for video game consoles,
- g. iPod and Shuffle music players use NAND Flash Memory chips to store songs,
- h. Apple's iPhone.

**B. Stand-Alone Product**

48. Flash memory is also a stand-alone product. It is not always subsumed within, or a part, of another product. When a consumer purchases Flash memory, they can do so by buying the product itself, not another product of which Flash memory is a component. For that reason, determination of the amount by which plaintiff and the class suffered antitrust damages is not complicated by the need to determine the extent to which defendants' price-fixing conduct inflated the price of various components: one need only examine the extent to which Flash memory card prices were inflated.

**C. Applications**

49. Non-Volatile memory is computer memory that can retain the stored information even when not powered. Examples include read only memory, Flash Memory, hard disks, floppy disk drives, magnetic tape and optical drives. Non-Volatile Memory is usually used for the task of secondary storage or long-term persistent storage. The most widely used primary storage is a volatile form of RAM, meaning when the computer is shut down, anything contained in RAM is lost.

50. Flash has long been used to make thumb-size USB drives popular for transferring data between home and office. What is new is that Flash memory is just now becoming cheap enough that flash chips can be used as the innards of solid-state drives to replace traditional disk drives, which provide long-term storage on computers. This new breed of solid-state drives has the same housings and connections as hard-disk drives. Computers will not know the difference, except that the solid-state drive will be lighter, quieter, more energy efficient and, absent moving parts, more reliable.

51. Unlike hard-disk drives, Flash Memory handles data all electronically without the use of motors. A traditional disk drive takes time to spin around and position itself so that the

1 needed data are underneath the drive "head" that does the reading and writing. There is no such  
2 delay with flash, because it's all nonmoving, solid-state electronics. The minute or so needed to  
3 boot up from a hard drive can thus be cut up to half if Flash Memory is used instead. Flash  
4 Memory PCs are also lighter. Samsung Electronics Co. has developed a Flash Memory storage  
5 device that comes in at 15 grams, 25% the weight of a hard drive.

6 52. Because of the minuscule size of Flash Memory, manufacturers are able to develop  
7 smaller and lighter products. An example is Motorola's RAZR mobile phone, which is the thinnest  
8 cell phone available.

9 **D. Different Types of Flash Memory**

10 53. Currently, NOR and NAND are the two main types of nonvolatile memory chips  
11 used in electronic devices to retain data when power is switched off. NOR chips excel at reading  
12 data at high speed, making them suitable for running software in cell phones, while NAND chips -  
13 widely used in digital cameras and music players - write data at high speed and generally have  
14 greater storage capacity. "NAND Flash has wider application and greater market potential than  
15 NOR," acknowledged Toshiba spokeswoman Hiroko Mochida. "As more mobile phones require  
16 larger capacity to store large-sized music and video files, NAND Flash Memory, which is (better)  
17 for larger-storage, will take over the NOR Flash market," said Shin Young-jun, an official at  
18 Samsung Electronics.

19 54. NOR and NAND are Flash Memory chips constructed of either NOR or NAND  
20 logic gates. Electronic logic gates are a collection of transistors and resistors that perform a logical  
21 operation on one or more logic inputs and produce a single logic output. The logic normally  
22 performed is boolean logic and is commonly found in digital circuits. Transistors make up logic  
23 gates. Logic gates make up circuits. Circuits make up electronic systems. NOR chips function  
24 like a computer's main memory, while NAND works like a hard disk. An example would be, in a  
25 digital camera, NOR Flash Memory contains the camera's internal software, while NAND Flash  
26 Memory is used to store the pictures.

27 55. A logic gate is an elementary building block of a digital circuit. There are seven  
28 logic gates: NAND, NOR, AND, OR, NOT, XOR, and XNOR. Most logic gates have two input



1 terminals and one output terminal. Every terminal is in one of two binary conditions that is  
2 represented by different voltage.

3 56. NOR Flash Memory was developed by Intel in 1988. NOR Flash Memory supports  
4 one-byte random access and "execute in place" (XIP), which means machine instructions can be  
5 obtained and executed directly from Flash Memory without going into main memory (DRAM) first  
6 as is required with NAND Flash Memory. NOR Flash Memory has a lifespan of about 100K write  
7 cycles. As with all Flash Memory, the cells must be erased in large blocks before being written.  
8 Erasing a block of typically 16KB takes several seconds, but reading and writing one byte at a time  
9 is very fast. NAND Flash Memory was developed by Toshiba a year after Intel's NOR Flash  
10 Memory. NAND Flash Memory functions like a disk rather than memory. Flash Translation  
11 Layer software makes flash look like a disk drive to the operating system. "Reads and writes" are  
12 sector-sized blocks of 512 bytes; however, typically, a 2KB page of four blocks are read and  
13 written at the same time. Before writing, cells are erased in blocks ranging from 16KB to 128KB.  
14 Less expensive than NOR, NAND Flash Memory can be rewritten up  
15 to a million times, and erasing and writing NAND is faster than NOR.

16 57. AND is another stand alone NAND-like chip. Hitachi and Mitsubishi  
17 manufactured, sold, and distributed AND. Renesas, a product of the merger between Hitachi and  
18 Mitsubishi, also produces AND and AG-AND chips.

19 58. Micron Technology and Intel Corporation are sampling industry-leading 50nm  
20 multi-level cell (MLC) NAND Flash Memory manufactured by their NAND Flash Memory joint  
21 venture, IM Flash Technologies. The new MLC NAND Flash Memory components feature a  
22 world-class die and cell size ideally suited for use in today's computing and consumer electronics  
23 devices that are increasingly smaller and more efficient themselves. The 50nm MLC technology,  
24 sampling at a 16GB die density, complements the previously announced 50nm single-level cell  
25 (SLC) products that the companies are shipping today at a 4GB die density. The new MLC NAND  
26 product caps a year of productive activity in which Intel and Micron aggressively ramped a state-  
27 of-the-art 300mm Flash manufacturing factory network and are in the midst of developing sub-  
28 40nm NAND Flash Memory products.

1           59. The most current and fastest Flash Memory was unveiled in May 2007. The  
2 Hyperlink NAND (HLNAND(TM)), a Flash breakthrough Flash Memory architecture and interface  
3 that will dramatically improve the performance of computer products that use Flash Memory,  
4 including solid state drives (SSD's), Flash Memory cards and USB Flash drives. As the first new  
5 Flash Memory architecture and device interface in 15 years, HLNAND Flash is a high-  
6 performance solution that combines MOSAID's own HyperLink memory technology with industry  
7 standard NAND Flash cell technology to deliver the industry's most advanced feature set, reaching  
8 sustained I/O bandwidths more than ten times higher than conventional Flash. HLNAND Flash  
9 delivers sustained read and write bandwidth up to 800MB/s using existing NAND Flash cell  
10 technology. HLNAND Flash offers a highly expandable memory subsystem, supporting up to 255  
11 devices on a single interface. The improved write scheme provides significant improvements to  
12 program and erase endurance and also enables lower voltage operation to yield lower power  
13 consumption in portable applications.

14           60. Toshiba America Electronic Components, Inc. commercialized a new embedded  
15 NAND Flash Memory series, which complies with the eMMC(TM) standard and achieves the  
16 industry's largest capacity. The new 16 gigabyte (GB) devices are designed for application in  
17 mobile consumer products, such as mobile phones and video cameras.

18           61. The new 16GB chip combines eight 2GB NAND chips fabricated with Toshiba's  
19 cutting-edge 56nm process technology, along with a controller chip, in a standard small size  
20 package. The new embedded memory offers advantages that realize a versatile, easily applied  
21 solution: the largest capacity yet achieved in this product category will bring new capabilities to  
22 mobile consumer products; integration of a dedicated controller reduces product development  
23 burdens on product manufacturers; and full compliance with the MultiMediaCard Association  
24 (MMCA) Ver. 4.2 high speed memory standard for memory cards, which supports standard  
25 interfacing, a maximum data transfer rate of 52MB/sec. and simplified embedding in products.

26           62. Toshiba will launch a series of embedded NAND Flash Memories based on the new  
27 technology, ranging from 1 GB to 16GB in capacity. This wide line-up of eMMC(TM) compliant  
28 memories will enable application of these devices in a wide range of products. There is a growing

1 demand for memories with a controller function that minimize development requirements and ease  
 2 integration into system designs. Toshiba has responded with products such as the LBA-  
 3 NAND(TM) memory, which incorporates basic control functions for NAND applications, and GB-  
 4 NAND(TM), a large capacity chip with an SD interface.

5 **E. Defendants Opportunities To Exchange and Monitor Pricing Information**

6 63. Numerous industry trade organizations facilitate Defendant Flash Memory cartel  
 7 activities. All of the Defendants are members of the Joint Electronic Device Engineering Council  
 8 ("JEDEC") Solid State Technology Association, a standard-setting organization which over the  
 9 years has held dozens of general membership meetings and regional meetings across the world. In  
 10 addition, Hynix and Micron are among the founding members of the Open NAND Flash Interface  
 11 group, the purpose of which is to meet and discuss standards and production of NAND Flash  
 12 Memory products. Among the other members of the ONFI group are Micron, Hitachi & Winbond.

13 a. Defendants had ample opportunities to meet over the years at various  
 14 electronics conventions and other industry activities and expos across the  
 15 world to conduct cartel activities. For example, Hitachi, Lexar (now part of  
 16 Micron), Mitsubishi, Renesas, Samsung, Toshiba and Winbond, or their  
 17 affiliates, are members of the CompactFlash Association which was  
 18 founded in 1995 as "a non-profit, mutual- benefit" association to promote  
 19 various forms of flash memory. Over the years, CompactFlash members  
 20 have met in Japan, Germany, the United Kingdom and the United States.

21 b. Members first got together in New Orleans in February 1997 to meet and  
 22 give demonstrations of their products at PMA 97. PMA stands for Photo  
 23 Marketing Association, which annually conducts an international photo  
 24 industry expo. On March 10-11, 1997, CompactFlash held its first general  
 25 meeting, with product demonstrations and press briefings, in London.

26 c. Other CompactFlash meetings and presentations were held:

- 27 • January 8, 1998, Consumer Electronics Show in Las Vegas.
- 28 • February 10, 1998, PMA 98 in New Orleans.

- September 16, 1998, Photokina 98 in Cologne, Germany.
- September 30, 1998, World PC Expo in Tokyo.
- January 7, 1999, International Consumer Electronics Show, 1999 in Las Vegas.
- February 18, 1999, PMA 1999 in Las Vegas.
- September 7, 1999, World PC Expo 99 in Tokyo.
- December 27, 1999, Consumer Electronics Show 2000 in Las Vegas.
- September 20, 2000, Photokina 2000 in Koln, Germany.
- October 17, 2000, World PC Expo 2000 in Tokyo. At this event Compact Flash also conducted "a free Host Develop Seminary" at Tokyo Fashion Town, according to a news release. "Presentations will be in Japanese and handouts will also be in Japanese," the release said.
- January 6, 2001, Consumer Electronics Show 2001 in Las Vegas.
- February 11, 2001, PMA 2001 in Orlando, Florida.
- January 8, 2002, International Consumers Electronics Show 2002 in Las Vegas.
- September 25, 2002, Photokina 2002 in Koln Germany.
- October 16, 2002, World PC Expo in Tokyo.
- September 17, 2003, World PC Expo in Tokyo.
- January 5, 2006, International Consumers Electronics Show 2006 in Las Vegas. The CompactFlash Association and 60 of its members met at the show to celebrate the 10th anniversary of the founding of the association and presented exhibits, according to a news release.

64. The September 7, 1999 World PC Expo '99 in Tokyo was of special significance with indications it was the site of the birth of cartel-like activities. The CompactFlash Association had 50 members exhibiting at the Expo, a record number for an international show. In addition to special meetings, dinners and other activities at the Expo (which attracted 350,000 corporate

1 employees and IT professionals) that could translate into cartel actions, the sponsor of the Expo  
2 said in a news release: "Networking opportunities will also be promoted for overseas exhibiting  
3 companies by holding an International Business Partnership Party where company representatives  
4 can meet with Japanese buyers and an International Business Seminar that will examine IT  
5 industry/market trends in China, India and Taiwan." The release also said: "WORLD PC EXPO  
6 has gained a reputation as a gateway to the world's second largest market in IT and as a place  
7 where the alliances and OEM partners from the information home appliance age assembly for  
8 Asia's largest IT showcase...Most overseas exhibiting companies see the EXPO as a chance to meet  
9 potential business partners in Asian markets, including the vast emerging market in China."

10 65. The structure of the market allowed Defendants to maintain and enforce their cartel,  
11 using methods such as price signaling. On March 20, 2006, Hynix warned investors that the prices  
12 of NAND Flash Memory could fall as much as 50% for the year. The next day, Samsung publicly  
13 announced that prices would recover and stabilize. As of August 2006, Flash Memory prices had  
14 stabilized, in part, as a result of reduced inventory from manufacturers. "Apple to spur NAND  
15 Flash Market, firm says," Electronic News, August 9, 2006.

16 66. One commentator noted the pervasiveness of cartel activity among the Defendants  
17 and others within the overall semiconductor industry - "If the DOJ wanted to, it could just go down  
18 every line in the semiconductor industry and find the same issue," said Gartner, Inc. analyst Richard  
19 Gordon. "That's because there are a relatively few number of suppliers in the chip industry and an  
20 open flow of communication between competitors and customers, who may not define price fixing  
21 the same way the DOJ does," he said."

22 ([http://blog.tmcnet.com/regulations/enforcement/doj-subpoenas-go-to-amd-nvidia-antitru](http://blog.tmcnet.com/regulations/enforcement/doj-subpoenas-go-to-amd-nvidia-antitrust-violations-eyed.asp)  
23 [st-violations-eyed.asp](http://blog.tmcnet.com/regulations/enforcement/doj-subpoenas-go-to-amd-nvidia-antitrust-violations-eyed.asp))

24 67. Certain websites, such as DRAMeXchange (found at  
25 <http://www.dramexchange.com>), allow Defendants to track each other's Flash Memory  
26 prices as well.

27 68. Several of the Defendants Headquarters are located within blocks of each other on  
28 the same street in San Jose, California. This proximity provides unlimited opportunities for those

1 Defendants to participate in Flash Memory cartel activities.

- 2 • Hynix Semiconductor America, Inc., 3101 North First Street
- 3 • Mosel Vitelic Corporation, 3910 North First Street
- 4 • Samsung Semiconductor, Inc., 3655 North First Street
- 5 • Winbond Electronics Corporation America, Inc. 2727 North First Street.
- 6 • Another Defendant in San Jose, Renesas Technology America, Inc., is located nearby at
- 7 450 Holger Way.

8 69. Additionally, Defendants Mosel Vitelic , Inc and Winbond Electronic Corporation  
9 are located in the same technology office park, Science-Based Industrial Park, in Hsinchu, Taiwan.

10 70. The private dining and banquet rooms at Birk's Restaurant, located at 3955  
11 Freedom Circle in Santa Clara, California, are considered the quintessential gathering place for the  
12 top executives in Silicon Valley, including those from firms located on North First Street in San  
13 Jose (just a few miles away) and those visiting from overseas. Various defendants and co-  
14 conspirators met at least once at Birk's during the class period to carry out their cartel activities,  
15 which included discussions on Flash Memory prices, discussions where parties agreed to fix prices,  
16 and agreements on the methods of monitoring and enforcing the agreed-upon prices and markets.

17 71. All of the above opportunities to exchange and monitor Flash Memory pricing  
18 information allowed Defendants to communicate their intended prices for Flash Memory to each  
19 other throughout the Class Period. These conversations were not simply the sharing of publicly  
20 available information. Rather, Defendants communicated with each other prior to price moves and  
21 collected competitive information similar to the pattern seen in the DRAM and SRAM markets.  
22 This information sharing was intended to, and in fact did, cause the price of Flash Memory to be  
23 stabilized and/or artificially inflated in violation of antitrust laws.

24 72. There is also a great deal of cross-licensing and many cooperative arrangements in  
25 the Flash Memory industry, creating additional opportunities for collusive activity. By way of  
26 example, SanDisk announced in a press release dated 8/19/2002 that it had signed cross license and  
27 supply agreements concerning flash memory technology with Samsung.

28 73. Other cooperative arrangements include joint ventures, which are common



1 throughout the industry. For example, in March of this year, SanDisk announced that it had signed  
 2 an agreement with Hynix for a joint venture to manufacture memory components and sell NAND  
 3 memory system solutions. SanDisk 10-Q filed on 8-07-07. At about the same time, SanDisk also  
 4 entered into a cross-licensing agreement with Hynix that covers NAND flash memory products.  
 5 ([http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+](http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+Memory+Plant/2819007.html)  
 6 [Memory+Plant/2819007.html](http://www.streetinsider.com/Basic+Content/INTERVIEW:+SanDisk,Hynix+Plan+New+Flash+Memory+Plant/2819007.html)). SanDisk has also had long-standing joint ventures with Toshiba  
 7 during the Class Period; *see, e.g.*, 2006 Annual Report at 8 (“We and Toshiba have entered into  
 8 several business ventures. . . . With these ventures, we and Toshiba collaborate in the development  
 9 and manufacture of NAND flash memory products.”). STMicroelectronics had also entered into a  
 10 joint venture agreement with Hynix in 2004 for the building of a front-end memory plant in China,  
 11 and in 2001, STMicroelectronics had entered into a joint venture with Renesas to develop and  
 12 license RISC processors. STMicroelectronics Form 20-F, March 14, 2007.

13 74. During the Class Period, Defendants’ collusive behavior artificially inflated the  
 14 price of Flash Memory. Defendants participated in cartel-like behavior to fix the prices of these  
 15 products. Because of Defendants’ unlawful conduct and conspiracy, Plaintiff and other members  
 16 of the Class paid artificially inflated prices for Flash Memory. Plaintiff and other members of the  
 17 Class who purchased these products have been damaged by Defendants’ illegal actions.

#### 18 **F. Pricing Trend In Flash Memory Industry**

19 75. As a result of Defendants’ cartel like activity, prices for Flash Memory have been  
 20 maintained at supra-competitive levels from at least 1999 through the present. Prior to 1999, the  
 21 average selling price for all Flash Memory was at a decline. Beginning in 2000, and continuing  
 22 through the first quarter of 2001, the aggregate average price of Flash Memory stabilized, then  
 23 increased.

24 76. While Flash Memory prices began to somewhat decline at the end of 2001, the  
 25 cartel created by Defendants operated to palliate those declines so that prices were still at supra-  
 26 competitive levels. Defendants’ collusive activity still continues and has had the effect of keeping  
 27 prices at supra-competitive levels.

#### 28 **G. DOJ Investigation**

1           77. The trend in the average prices of Flash Memory is similar to a contemporaneous  
2 price movement in the DRAM market. The pricing, and behavior of, participants in the DRAM  
3 market during this period is currently the subject of a price-fixing investigation by the Antitrust  
4 Division of the U.S. Department of Justice. Several of the Defendants named herein are either  
5 currently the subject of the DRAM investigation, or have pleaded guilty to price-fixing charges  
6 with respect to DRAM. Samsung, for example, was fined \$300 million by the United States in  
7 October 2005 for participating in DRAM price-fixing. Samsung is also under investigation by the  
8 DOJ (along with some of the other Defendants) for fixing the prices of SRAM. The agents  
9 and employees of Samsung, Hynix, and Micron implicated in the DRAM price-fixing conspiracy  
10 are the same agents and employees that are responsible for pricing SRAM and Flash Memory.  
11 Samsung and Hynix have pled guilty to price-fixing in the DRAM market during the period from  
12 1999 to 2002 and have paid substantial fines for those unlawful activities. Samsung has paid \$300  
13 million while Hynix has paid \$185 million. Micron was the amnesty applicant in the DRAM  
14 price-fixing investigation. On April 20, 2007, it was reported that a sixth executive from Samsung  
15 had pled guilty to conspiracy; as part of his plea agreement, the executive, Il Ung Kim, will serve a  
16 14 month sentence in a United States prison – “the longest imprisonment ever by a foreign  
17 defendant charged with price fixing in the United States.” Technews, 4-20-07  
18 (<http://www.technologynewsdaily.com/node/6754>).

19           78. In October 2006, the DOJ sent subpoenas to approximately 23 companies, including  
20 Samsung, Toshiba, Hynix, Renesas, and Micron, in connection with an investigation of cartel  
21 activity in the SRAM industry. A DOJ spokesperson was quoted as saying: “[t]he U.S.  
22 Department of Justice's antitrust division is conducting an investigation regarding anti-competitive  
23 practices against chief SRAM manufacturers.” DOJ's SRAM investigation concerns anti-  
24 competitive conduct that was continuing at least as recently as 2005.

25           79. In March 2007, Toshiba and Hynix declared a truce by agreeing to a cross-  
26 licensing deal on NAND Flash Memory chips, ending a two-and-a-half year legal battle over  
27 patents. “We made the cross-licensing agreement due to mutual needs,” said James Kim, vice-  
28 president of investor relations at Hynix. Hynix and Toshiba also signed patent cross-licensing and

1 product supply agreements covering semiconductor technology. Under the terms of the deal,  
 2 Hynix pays Toshiba a cross-licensing fee and Toshiba is able to buy chips from Hynix. The  
 3 agreement settled all pending patent-related litigation between the companies in the US and Japan.

#### 4 **H. Unfair Business Practices and Anti-Competitive Conduct**

5 80. Defendants, which includes their officers, directors, and employees, participated in  
 6 anti-competitive behavior and unfair business practices which effectuated harm on businesses and  
 7 consumers and violated standards of ethical behavior through the following conduct:

- 8 a. participating in meetings and conversations, including through various trade
- 9 associations and committees, to discuss the prices of Flash Memory in the
- 10 United States;
- 11 b. agreeing, during those meetings and conversations, to charge prices at
- 12 specified levels and otherwise to increase and maintain prices of Flash
- 13 Memory sold in the United States;
- 14 c. issuing price announcements and quotations in accordance with the
- 15 agreements reached; and selling Flash Memory to various customers in the
- 16 United States at non-competitive prices.

17 81. Defendants' contract, combination, trust or conspiracy was centered in, carried out,  
 18 effectuated and perfected mainly in the State of California. Statements concerning the prices and  
 19 market conditions for Flash Memory were disseminated by Defendants from and into California on  
 20 a regular and continuous basis. Therefore, all members of Class, whether or not California  
 21 residents, are entitled to recover under California law, as well as the laws of their own states.

#### 22 **VIII. ACTIVE CONCEALMENT OF CONSPIRACY**

23 82. Throughout and beyond the conspiracy, Defendants and their co-conspirators  
 24 affirmatively and actively concealed their unlawful conduct from Plaintiff. Defendants and their  
 25 co-conspirators conducted their conspiracy in secret and kept it mostly within the confines of their  
 26 higher-level executives. Defendants and their co-conspirators publicly provided pretextual and  
 27 false justifications regarding their price increases. Defendants and their co-conspirators conducted  
 28 their conspiracy in secret, concealed the true nature of their unlawful conduct and acts in

1 furtherance thereof, and actively concealed their activities through various other means and  
 2 methods to avoid detection. Plaintiff did not discover, and could not have discovered through the  
 3 exercise of reasonable diligence, that Defendants and their co-conspirators were violating the  
 4 antitrust laws as alleged herein until shortly before class action litigation was commenced.

5 83. As a result of the active concealment of the conspiracy by Defendants and their co-  
 6 conspirators, any and all applicable statutes of limitations otherwise applicable to the allegations  
 7 herein have been tolled.

## 8 **IX. VIOLATIONS ALLEGED**

### 9 **First Claim**

#### 10 **(Violation of Section 1 of the Sherman Act)**

11 84. Plaintiff incorporates and realleges, as though fully set forth herein, each and every  
 12 allegation set forth above.

13 85. Although the precise dates are not known to Plaintiff but are known to defendants,  
 14 Plaintiff alleges upon information and belief that from as early as January 1, 1999, and continuing  
 15 through at least through the present, Defendants and their co-conspirators entered into  
 16 agreements, understandings, and a conspiracy in restraint of trade to artificially raise, fix, maintain,  
 17 and/or stabilize prices for Flash Memory in the United States. These agreements, understandings,  
 18 and the conspiracy violated §1 of the Sherman Act, 15 U.S.C. §1.

19 86. Defendants' and their co-conspirators activities as alleged herein were within the  
 20 flow of, were intended to, and did have a substantial effect on the foreign and interstate commerce  
 21 of the United States.

22 87. In entering into and conducting the conspiracy as agreed, Defendants and their co-  
 23 conspirators committed the acts they agreed to commit, including those specifically set forth herein  
 24 and additional acts and conduct in furtherance of the conspiracy, with the specific goals and intent:

- 25 a. of fixing, raising, and maintaining the price of Flash Memory;
- 26 b. of allocating amongst themselves markets for Flash Memory;
- 27 c. of submitting rigged bids in order to secure and carry out certain Flash
- 28 Memory contracts; and

d. of allocating amongst themselves the production of Flash Memory.

88. Among the effects of Defendants' and their co-conspirators acts have been:

- a. Restraint, suppression, and/or elimination of price competition in the sale of Flash Memory in the United States;
- b. The raising, fixing, maintenance, and stabilization of prices at artificially high and non-competitive levels for Flash Memory sold by Defendants and their co-conspirators in the United States; and
- c. The denial to consumers of Flash Memory products of the benefits of competition.

89. Plaintiff and the members of the Class have been injured and will continue to be injured in their business and property by paying more for Flash Memory purchased indirectly from Defendants and their co-conspirators than they would have paid and will pay in the absence of the combination and conspiracy, including paying more for personal computers, mobile phones and other products in which Flash Memory is a component as a result of higher prices paid for Flash Memory by the manufacturers of those products.

90. Plaintiff and the Class are entitled to an injunction against Defendants, preventing and restraining the violations alleged herein.

### **Second Claim**

#### **(Violation of the California Cartwright Act)**

91. Plaintiff realleges the paragraphs set forth above and incorporates them herein as if fully alleged.

92. Defendants' acts in violation of federal and state antitrust laws and other laws as alleged herein were carried out, centered in, effectuated from and perfected largely within the State of California. Defendants' conduct within California injured all members of the Class throughout the United States. As a result, this claim for relief under California law is brought on behalf of all members of the Class, regardless of their residence and/or domicile.

93. From at least as early as January 1, 1999, and continuing until the present, Defendants and their co-conspirators entered into and engaged in a continuing conspiracy in

1 violation of §16720 of the California Business and Professional Code. Defendants and their co-  
 2 conspirators acted in violation of §16720 to fix, raise, stabilize and maintain prices of, and allocate  
 3 markets for, Flash Memory at prices in excess of what they would have been absent Defendants'  
 4 and their co-conspirators' conduct as alleged herein.

5 94. The violations of §16720 of the California Business and Professions  
 6 Code as alleged herein comprised a continuing unlawful trust and concert of action between and  
 7 among the Defendants and their co-conspirators. The substantial terms of this unlawful trust were  
 8 to fix, raise, maintain and stabilize the prices of, and to allocate markets for, Flash Memory.

9 95. In carrying out this illicit trust and conspiracy, Defendants and their co-  
 10 conspirators:

- 11 a. fixed, raised, maintained, and stabilized the price of Flash Memory;
- 12 b. allocated markets for Flash Memory among themselves;
- 13 c. submitted rigged bids for the award and performance of certain Flash
- 14 Memory contracts; and
- 15 d. allocated amongst themselves the production of Flash memory.

16 96. Defendants' and their co-conspirators' actions caused:

- 17 a. a restraint of price competition in the sale of Flash Memory in the State of
- 18 California and throughout the United States;
- 19 b. the fixing of artificially high, non-competitive prices for Flash Memory
- 20 sold by Defendants and their co-conspirators in the State of California and
- 21 throughout the United States; and
- 22 c. Plaintiff and the class to be deprived of the benefit of free and open
- 23 competition in the pricing of Flash Memory.

24 97. Plaintiff and the other members of the Class paid artificially high, non-competitive  
 25 prices for Flash Memory;

26 98. Plaintiff and the members of the Class have been injured in their business and  
 27 property as a direct and proximate result of Defendants' unlawful conduct because they paid more  
 28 for products containing Flash Memory than they otherwise would have paid but for Defendants'



1 unlawful conduct. Plaintiff and the class seek treble damages and the costs of the suit, including  
 2 reasonable attorneys' fees, pursuant to §16750(a) of the California Business and Professions Code,  
 3 as a result of Defendants' and their co-conspirators' violations of §16720 of the California Business  
 4 and Professions Code.

### 5 Third Claim

#### 6 (Violation of the California Unfair Competition Law)

7 99. Plaintiff realleges the allegations set forth above and incorporates them herein as if  
 8 fully set forth.

9 100. Defendants' acts in violation of federal and state antitrust laws and other laws as  
 10 alleged herein were carried out, centered in, effectuated from and perfected largely within the State  
 11 of California. Defendants' conduct within California injured all members of the Class throughout  
 12 the United States. As a result, this claim for relief under California law is brought on behalf of all  
 13 members of the Class, regardless of their residence and/or domicile.

14 101. Beginning no later than January 1, 1999, and continuing thereafter up to the present,  
 15 Defendants and their co-conspirators violated §17200 by engaging in acts of unfair competition as  
 16 alleged herein.

17 102. This Claim is asserted pursuant to §§17203 and 17204 of the California Business  
 18 and Professions Code. Plaintiffs and the class seek restitution from Defendants for the acts alleged  
 19 herein which violate §17200 of the California Business and Professions Code.

20 103. The acts of Defendants and their co-conspirators as set forth herein are unfair,  
 21 unlawful and/or fraudulent business acts or practices within the meaning of California Business  
 22 and Professions Code, §17200 and include, but are not limited to, the following:

- 23 a. Violations of §1 of the Sherman Act;
- 24 b. Violations of §16720, et seq., of the California Business and
- 25 Professions Code;
- 26 c. Other acts by Defendants and their co-conspirators as alleged herein
- 27 which are otherwise unfair, unconscionable, unlawful or fraudulent within
- 28 the meaning of §17200, California Business and

Professions Code; and

104. Plaintiff and each of the Class members are entitled to full restitution and/or disgorgement of all revenues, earnings, profits, compensation and benefits which Defendants may have obtained as a result of such business acts or practices.

105. Defendants' and their co-conspirators' unlawful and unfair business practices are believed to be continuing and there is no reason to believe that Defendants will not cease such conduct.

106. The acts of Defendants and their co-conspirators as alleged herein have caused and continue to cause Plaintiff and the members of the Class to pay higher prices for products containing Flash Memory than they would have paid but for these acts. Plaintiff and the members of the Class suffered injury in fact and lost money or property as a result of such unfair competition. This conduct violates §17200 of the California Business and Professions Code.

107. Defendants and their co-conspirators have been unjustly enriched, and Plaintiff and the class are entitled to relief including restitution and/or disgorgement of all revenues, earnings, profits, compensation and benefits which may have been obtained by Defendants as a result of such business practices, pursuant to the California Business and Professions Code, §§17203 and 17204.

#### **Fourth Claim**

##### **(Violation of State Antitrust and Unfair Competition Law)**

108. Plaintiff incorporates and realleges, as though fully set forth herein, each and every allegation set forth in the preceding paragraphs of this Complaint.

109. By reason of the foregoing, Defendants have entered into agreements in restraint of the trade in violation of:

- a. Alabama Code §§8-10-1 et seq.
- b. Arizona Revised Stat. §§44-1401 et seq.
- c. District of Columbia Code Ann. §§28-4503 et seq.
- d. Iowa Code §§553.1 et seq.
- e. Kansas Stat. Ann. §§50-101 et seq.

- f. Maine Rev. Stat. Ann. 10, §§1101 et seq.
- g. Michigan Com. Laws. Ann. §§445.773 et seq.
- h. Minnesota Stat. §§325D.52 et seq.
- i. Mississippi Code Ann. §§75-21-1 et seq.
- j. Nebraska Rev. Stat. §§59-801 et seq.
- k. Nevada Rev. Stat. Ann. §§598A et seq.
- l. New Mexico Stat. Ann. §§57-1-1 et seq.
- m. North Carolina Gen. Stat. §§75-1 et seq.
- n. North Dakota Cent. Code §§51-08.1-01 et seq.
- o. Pennsylvania common law.
- p. South Dakota Codified Laws Ann. §§37-1 et seq.
- q. Tennessee Code Ann. §§47-2-101 et seq.
- r. Vermont Stat. Ann. 9 §§2453 et seq.
- s. West Virginia §§47-18-1 et seq. and
- t. Wisconsin Stat. §§133.01 et seq.

110. Class Members in each state listed above paid supra-competitive, artificially inflated prices for Flash Memory. As a direct and proximate result of Defendants' unlawful conduct, such members of the Class have been injured in their business and property in that they paid more for Flash Memory products than they otherwise would have paid in the absence of the Defendants' unlawful conduct.

#### **Fifth Claim**

#### **(Violation of State Consumer Protection and Unfair Competition Laws)**

111. Plaintiff incorporates and realleges, as thought fully set forth herein, each and every allegation set forth in the preceding paragraphs of this Complaint.

112. Defendants engaged in unfair competition or unfair, unconscionable, deceptive or fraudulent acts or practices in violation of the state consumer protection and unfair competition statutes listed below.

113. Defendants have engaged in unfair competition or unfair or deceptive acts or

practices in violation of

- a. Alaska Stat. §§45.50.471 et seq.
- b. Arkansas Code §§4-88-101 et seq.
- b. District of Columbia Code §§28-3901 et seq.
- c. Florida Stat. §§501.201 et seq.
- d. Hawaii Rev. Stat. §§480 et seq.
- e. Idaho Code §§48-601 et seq.
- f. Kansas Stat. §§50-623 et seq.
- g. Louisiana Rev. Stat. §§51:1402 et seq.
- h. 5 Maine Rev. Stat. §§207 et seq.
- i. Montana Code §§30-14-101 et seq.
- j. Nebraska Rev. Stat. §§59-1601 et seq.
- k. New Mexico §§57-12-1 et seq.
- l. New York Gen. Bus. Law §§349 et seq.
- m. North Carolina Gen. Stat. §§75-1.1 et seq.
- o. Oregon Rev. Stat. §§646.605 et seq.
- p. Rhode Island Gen. Laws §§6-13.1-1 et seq.
- q. South Carolina Code Laws §§39-5-10 et seq.
- r. Utah Code §§13-11-1 et seq.
- s. 9 Vermont §§2451 et seq.
- t. West Virginia Code §§46A-6-101 et seq.
- u. Wyoming Stat. §§40-12-105 et seq.

114. Class Members in the states listed above paid supra-competitive, artificially inflated prices for Flash Memory products. As a direct and proximate result of Defendants' unlawful conduct, Plaintiff and the members of the Class have been injured in their business and property in that they paid more for Flash Memory products than they otherwise would have paid in the absence of Defendants' unlawful conduct.

//

**Sixth Claim**

**(Unjust Enrichment and Disgorgement of Profits)**

115. Plaintiff realleges the allegations set forth above as if fully set forth herein.

116. As a result of the conduct alleged herein, defendants and their co-conspirators have been unjustly enriched through overpayments by Plaintiff and the other Class Members and the resulting profits.

117. Defendants should not be permitted to retain the benefits conferred via overpayments by Plaintiff and the other Class Members.

118. Plaintiff seeks disgorgement of all profits resulting from such overpayments and establishment of a constructive trust from which Plaintiff and Class Members may seek restitution.

**X. PRAYER FOR RELIEF**

WHEREFORE, plaintiff prays:

A. That the Court determine that class treatment pursuant to Federal Rules of Civil Procedure 23(a), 23(b)(2), and 23(b)(3) is appropriate for the claims alleged herein under the Sherman Act, the California Cartwright Act, the California Unfair Competition Law, the state antitrust and unfair competition laws, and the common law;

B. That the Defendants, their affiliates, successors, transferees, assignees, and the officers, directors, partners, agents, and employees thereof, and all other persons acting or claiming to act on their behalf, be permanently enjoined and restrained from in any manner continuing, maintaining, or renewing the conduct, contract, trust, understanding, conspiracy, or combination alleged herein, or from entering into any other conduct, contract, trust, understanding, conspiracy, or combination having a similar purpose or effect, and from adopting or following any practice, plan, program, or device having a similar purpose or effect;

C. That the unlawful conduct, contract, conspiracy or combination alleged herein be adjudged and decreed to be:

- i. a restraint of trade or commerce in violation of §1 of the Sherman Act;
- ii. a violation of the California Cartwright Act;

- iii. a violation of the California Unfair Competition Law;
- iv. violations of the state antitrust and unfair competition laws; and
- v. acts of unjust enrichment.

D. That Plaintiff and the Class recover damages, as available under the law, and that a judgment be entered in favor of Plaintiff and the Class jointly and severally against Defendants in an amount to be trebled in accordance with applicable laws;

E. That Plaintiff and members of the Class be awarded restitution, including disgorgement of profits obtained by Defendants as a result of their acts of unfair competition, unfair or deceptive acts or practices and acts of unjust enrichment;

F. That Plaintiff and members of the Class be awarded pre- and post-judgment interest from and after the date of service of the initial complaint in this action;

G. That Plaintiff and members of the Class recover their costs of this suit, including reasonable attorneys' fees as provided by law; and

H. That Plaintiff and members of the Class receive such other and further relief as the nature of the case may require or as the Court deems just, equitable, and proper.

Dated: August 31, 2007

MINAMI TAMAKI LLP

By:

  
Jack W. Lee  
Attorneys for Plaintiff and the Class

**XI. DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury for all issues so triable.

Dated: August 31, 2007

MINAMI TAMAKI LLP

By:

  
Jack W. Lee  
Attorneys for Plaintiff and the Class